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# American Research Center In Egypt, Inc.

## NEWSLETTER



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NUMBER NINETY-THREE

SPRING 1975

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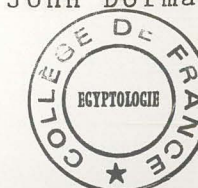
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-1a-

DIRECTOR

It is with regret that the ARCE has accepted the resignation of the Director of the Cairo Center, Mr. John Dorman, effective January 1 to June 30, 1976. Mr. Dorman has been Cairo Director since 1966 during which time he has made many friends for the Center in Egypt and the U.S., and many other countries as well.

The Executive Committee is reviewing applications for the position which requires ten months per year residence in Cairo and affords some time for separate interests. Salary is largely in Egyptian pounds, with a small dollar component. The Director of the Center is responsible for administration in Egypt of the fellowship program and archaeological projects. He also acts as liaison between ARCE and Egyptian government officials and scholars.

Readers and members are invited to submit names and curricula vitae to Prof. Morroe Berger, President, American Research Center in Egypt, 20 Nassau Street, Princeton, New Jersey 08540. ARCE invites applications from qualified women and members of minority groups.



## NOTES FROM PRINCETON

### Membership

Since the current membership drive began in the spring of 1974, ARCE has welcomed 130 new Individual Members.

Once again we remind readers that potential members whose names you submit to us will receive "Free Reports on Egyptology," two articles from previous Newsletters, one by Kent Weeks and one by Omm Sety. Individual Memberships are:

### Annual Dues

Patron .....	\$500.00 and up
Sustaining .....	250.00
Supporting .....	100.00
Contributing .....	50.00
Regular .....	15.00
Student .....	10.00

### Honored

Studies in Art and Literature of the Near East in honor of Richard Ettinghausen, edited by Peter J. Chelkowski, has been published by The Middle East Center, University of Utah, and New York University Press. Dr. Ettinghausen has been on the Board of Governors of ARCE since its early days; he is Consultative Chairman, Department of Islamic Art, Metropolitan Museum of Art and Hagop Kevorkian Professor of Islamic Art, Institute of Fine Arts, New York University. The Studies comprise fifteen essays by the leading authorities in the field of Islamic art and literature of interart correspondence plus a bibliography of the writings of Richard Ettinghausen covering forty years of scholarship.

S. D. Goitein will be the recipient of the Fifth Giorgio Levi Della Vida Medal in Islamic Studies, 1975, at the fifth biennial conference, to be held at the Near Eastern Center of the University of California at Los Angeles May 23 through 25. Two of the committee members are Reverend G. C. Anawati, O.P., Dominican Institute, Cairo and Honorary Member of ARCE, and Speros Vryonis, Jr., Director of the Near Eastern Center and UCLA's representative on the ARCE Board of Governors.

### Visitor

As part of a recent Series of Cultural Events on Iran, the Program in and Department of Near Eastern Studies at Princeton University were hosts to Dr. Hossein Nasr, Chancellor of Aryamehr University and Professor of History and Philosophy of Science at the University of Tehran. Dr. Nasr led two seminars (which were jointly sponsored by the Program in History and Philosophy of Science), "Islamic Philosophy in Science: Current Problems in Reeserch," one with emphasis on philosophy and one with emphasis on science. He also delivered two lectures, "Current Trends of Thought in the Islamic World" and "Sufism, Yesterday, Today and Tomorrow."

Other lectures in the series were "The Persian Garden" by Patricia, Countess Jellicoe, "The Problem of Internal Absorption of Oil Revenues in the Middle East" by Professor William B. Fisher, "Carpet Industry in Iran: Problems and Prospects" by Dr. Nasser Pakdaman and "Income Distribution and Social Inequality: The Case of Iran" by Dr. Ali Banuazizi.

### Correction

In NL number 92, Mrs. Oric Bates should have been listed as a member instead of Oric Bates.

### Publication of Interest

The Journals of Bonaparte in Egypt in ten volumes, Armant, 5 Cologne 41, Morsdorfer Strasse 13, West Germany. Armant also has available lists of titles on Ancient, Islamic, Christian and Modern Egypt.



PHOTOGRAPH OF ARCE FELLOWS FOR 1974-75



Seated (l. to r.): Linda S. Northrup, Michelle Raccagni, Kathleen Howard Merriam, Edna Russmann Stefanelli.

Standing (l. to r.): Abbas H. El Hamdani, Samuel R. Peterson, John F. Berry, James P. Jankowski, William H. Peck.

Absent: Soheir M. El-Bayoumi, Jere L. Bacharach, Michael W. Dols, Philip N. Pritchard, James F. Romano, Bernard Weiss.

# QUANTITATIVE RESEARCH ON THE MIDDLE EAST IN ISLAMIC TIMES: PROGRESS AND PROSPECTS

by Philip N. Pritchard, ARCE Fellow, University of Pennsylvania

In its most general sense, "quantification" simply means the use of numbers. However, when used adjectivally to distinguish a particular type of research, it connotes more than the mere use of numbers and involves some sort of connection with "explanation." The relationship of quantification to explanation as a whole is not at all clear. This is due in part to the fact that the various types of explanation have not themselves been clearly distinguished, and it is at least possible to visualize almost every sort of explanation utilizing some sort of quantification. To deal most fully with this phenomenon, I will concern myself here with the use of numbers in any way other than an occasional pair or series which indicate only a change in or inequality of the items being measured. Within this very broad concern, there is of course considerable room for variation in the degree to which numbers are used and in the sophistication and way in which they are used. I will attempt to point out and explain such variations where appropriate.

There has been a historical connection between topics and methods of research and the use of numbers. It must be emphasized that this connection is not a necessary one, inherent in the ways in which numbers can be used to explain. Relative to the study of the Middle East, this historical connection found expression in the phenomenon known as "Orientalism." This approach to the study of mankind had its origins in philology and theology; from the beginning it emphasized language and textual studies, and the explication of the ideas found in such texts. In line with the rationalist atmosphere of the late 19th Century, ideas were taken more or less at face value and treated as if they developed in an environment consisting almost entirely of other ideas; little systematic consideration was given to the effect of the social environment on the authors of these ideas. Political history was an extension of textual editing, was very descriptive, and explained situations largely in terms of the motivations and interests of individual leaders. Such emphases of course did not encourage quantitative research of any sort. Additionally, there existed very little quantitative social research of any sort even outside of Orientalism at the time of its formation and early development; there is no reason to have expected it to invent quantitative methods itself. Given the nature of the source materials available (and the methodologies by which they could be treated), it was very difficult to say much about the conditions under which the great mass of people lived and the reasons they had for acting as they did in the few situations in which their



actions were described in the sources. As we shall see in the data which follows, what was at first a natural development for Orientalism, emphasis on the important individual and his special characteristics, has been little eroded by developments in the social sciences. Orientalism, like history, has retained its view of explanation as the "understanding" of the unique situation rather than as the subsuming of such situations under general laws of human individual and social behavior. The debate between these two positions, called respectively the ideographic and the nomothetic, is by no means resolved although defenders of the latter clearly have the offensive because of their "scientific" method and the prestige which the successes of the natural sciences have given it.

It is worth making a few comments here about the "scientific" method of explanation. Without getting into the vast array of arguments involved, I will simply state that, in my opinion, the crucial distinguishing feature of this method is its empiricism. That is, assertions must be checkable by reference to what exists in the observable world, and it must be among the possibilities of such a check that the assertions will be denied. In order to do this, what is to be observed, how it is to be observed, and how the confirmation/disconfirmation decision is to be made must be unambiguously specified. It should be apparent that things which can be counted or measured in some way, rather than those which must be evaluated as fitting or not fitting some verbal description, can more easily fit such criteria. This does not mean that measurements are unconnected with verbal theory or that explanation without measurement cannot be scientific. At the same time, it should be pointed out that the tendency has been for nomothetic explanation to be formally theoretical and very often quantitative and for ideographic explanation to deny that it theorizes, even to the extent of generalizing (a discussion of this argument from the viewpoint of historians may be found in Louis Gottschalk, ed., Generalization in the Writing of History (Chicago, 1963); the philosophers' arguments are conveniently anthologized in Leonard I. Krimerman, ed., The Nature and Scope of Social Science: A Critical Anthology (New York, 1969). It can also be seen that such a denial of theorizing, which the "literary" or "artistic" writers make, does not exclude the use of numbers in demonstrating that its assertions are true: it merely militates against doing so and tends, through a non-systematic use of numbers when it does employ them, to ignore counter cases which would deny its assertions. If one believes, as I do, that scientific theory and control of the process of testing assertions deriving from such theory are of value, then the sloppy use of "quantification" by literarily trained scholars (and most Orientalist training, in "literature" or otherwise, falls within this category) can only marginally be considered quantification at all. "Quantification" can be used only to indicate the use of numbers, but this seems to me to deprive it of its special potential qualities of improved precision in explanation. Some remarks on the current production of "quantitative" research will be made in the discussion below.

# I. THE SURVEY

My interest here is in explaining the extent and nature of the development of quantitative work in Middle East studies. In order to do this, I made a survey of the production of such articles in the leading Western scholarly area-specialist journals during the past five years (1970-1974). The journals were:

AO	Acta Orientalia (Denmark) 1974 missing
AOC	Archiv Orientalni (Czechoslovakia) 1974 missing
BSOAS	Bulletin of the School of Oriental and African Studies (UK) 1973 incomplete
FO	Folia Orientalia (Poland) 1972 missing
LIMES	International Journal of Middle East Studies (UK/USA) 1974 incomplete
Islam	Der Islam (Germany) 1974 incomplete, 1973 missing
JA	Journal Asiatique (France) 1970, 74 missing
JAAS	Journal of Asian and African Studies (Netherlands/Canada) 1974 incomplete, 1973 missing
JAOS	Journal of the American Oriental Society (USA) 1973, 74 incomplete
JESHO	Journal of the Economic and Social History of the Orient (Netherlands/France)
MEJ	Middle East Journal (USA) 1970, 72, 73 incomplete
MES	Middle Eastern Studies (UK) 1971, 72, 74 incomplete, 1973 missing
REA	Arabica: Revue des Etudes Arabes (Netherlands/France) 1973, 74 incomplete
REI	Revue des Etudes Islamiques (France) 1973, 74 missing
RSO	Rivista degli Studi Orientali (Italy) 1973, 74 missing
SI	Studia Islamica (France) 1974 incomplete
WI	Die Welt des Islams (Netherlands/Germany) 1970, 72 missing
WZKM	Weiner Zeitschrift für die Kunde des Morgenlandes (Austria) 1970, 71, 73, 74 missing
ZDMG	Zeitschrift der Deutschen Morgenlandischen Gesellschaft (Germany) 1973, 74 incomplete, 1972 missing

Some comments about this sample are in order. I first chose the major Orientalist journal from each country. I decided that BSOAS currently better represents academic Orientalism in Britain than the older Journal of the Royal Asiatic Society. Due to the limitations of the library from which I drew this sample, I could not consult the Orientalist journals of Hungary, Rumania, Finland,



Turkey, or Mexico; nor could I fully determine what other countries even have Orientalist journals which might have been included. I have no idea whether the two East European journals included are representative of all East European Orientalist journals or not, and no idea at all about how well the other unchecked possibilities are represented by the sample as a whole. I was able to examine pre-1970 issues of Turkey's Western language journal, Oriens, and found it very similar to the French and German journals. I then picked the Islamic and Middle East generalist journals available to me, and Arabica, which is a major journal and general Islamicist journal in most ways. Finally, I included the general, article publishing journals on the modern Middle East: most of the modern periodicals are too heavily news oriented to have been included here as serious outlets of scholarly publication. I know of Spanish and Belgian periodicals in these two latter categories, but was not able to consult them. I think it unlikely that other serious modernist article publishing journals exist. The Islamic Quarterly and Muslim World were excluded as they are not general scholarly publications in several ways. In spite of the availability problems, I expect that the sample, if anything, overrepresents the rate of serious quantitative research being published in area-specialist journals: most of the more specialized periodicals follow the pattern of the Orientalist journals (see below).

Table 1.

Language of Publishing Country	1970	1971	1972	1973	1974	Total	Percent Coverage	Adjusted Total	Share of language
English	4	9	7	6	7	33	75.2	43.9	74
French	2	1	1	2	0	6	80.0	7.5	12
E. European	0	1	1	1	0	3	80.0	3.8	6
German	0	0	1	0	1	2	56.7	3.7	6
Other	0	0	0	0	0	0	64.0	0.0	0
Total	6	11	10	9	8	44	--	58.9	100
Rate (%)	3.58	6.59	7.87	8.41	7.75	6.52			

Tables 1 and 2 deal with the question of the distribution of quantitative work by publishing country and language. Table 1

indicates the very large share of the English-speaking countries in the publication of quantitative articles. Because of the unevenness of availability of periodicals from various countries, I have calculated the total volume of articles produced on the assumption that the rate of the sample I do have represents the mean rate of production for those issues I could not examine. This allows the comparison of relative production in the final column, which would otherwise be misleading. A figure for average production per journal could also be calculated, but we are interested here in nations, not journals, as producers (for the latter, see Table 3).

Table 2.

Language of Article	His-torical	Literary Linguis-tic	Approach				Per-centage
			Social	Political	Economic	Total	
English	5	3	12	7	13	40	90.8
French	1	1	0	0	0	2	4.6
German	0	2	0	0	0	2	4.6
Total	6	6	12	7	13	44	100.0

Comparing Tables 1 and 2, it becomes clear that the situation in Table 1 is in fact misleading if one wishes to measure the share of the language of the articles rather than the editorial language of their publishing journals. The relative share of English increases dramatically. Of equal interest is the distribution by approaches in Table 2. The English-publishing writers have a monopoly of social scientific production. Since, historically, the drive to quantify has come from social scientific practices, this is not surprising given the fact that quantitative social science had its first and main development in the United States. This also agrees with the dominance of English speakers in quantitative approaches in general. The specific English gains in Table 2 are due to three articles from East European journals and four from JESHO - three from Americans publishing there, and one from an Israeli. One might suggest that the non-native language of publication probably reflects the country of training (or at least subsequent reading), and thus may reflect the effects of the relative emphasis on quantitative techniques in the United States.

Table 1 also indicates the rise, in aggregate, between 1970 and 1973, of the relative share of quantitative articles (in Orientalist publications, only articles on the Middle East in



Islamic times were counted to compute this rate). The decline in 1974 may be due to the relative unavailability of issues for examination, and thus to a small and unrepresentative sample, or quantitative work may have reached a relative ceiling, and we can now expect it to vary from year to year around a mean of about 8%.

Table 3 breaks down the production by journal, in order of rate of production (in terms of percentage of all articles in that journal which are quantitative). The social scientific categories have been consolidated to throw the comparative distributions into sharp relief: the older, Orientalist/Islamicist journals do not give any space to such social scientific articles, which are entirely concentrated in three modernist and social scientific journals, and in the most recently created, all periods, Middle East Journal. All of these journals have been founded since World War II and all are produced in English-speaking countries. It will also be seen that, with the sole exception of JAOS, Orientalist quantification is entirely within the

Table 3. Approach

Journal	Date Founded	Type	His- torical	Literary Linguis- tic	Social Poli- tical Economic	Total	Rate	Cum. % of Total
MEJ	1947	modern	0	0	16	16	30.2	36.4
JAAS	1965	soc/sci	0	0	2	2	22.2	40.9
MES	1964	modern	0	0	6	6	14.3	54.5
JESHO	1958	soc/ec.	5	0	0	5	12.5	65.9
IJMES	1970	Mid East	0	0	8	8	8.5	84.1
AOC	1929	Orient.	0	2	0	2	8.4	88.6
ZDMG	1847	Orient.	0	1	0	1	4.2	--
JAOS	1843	Orient.	1	0	0	1	3.2	--
Islam	1910	Islam.	0	1	0	1	3.0	--
FO	1959	Orient.	0	1	0	1	2.2	--
SI	1953	Islam.	0	1	0	1	1.2	100.0

linguistic/literary category, and that no other sort of journal published such articles. The position of the "historical" category is interesting. Aside from the JAOS anomaly, only JESHO produces such articles. In many ways, this category can be considered a sub-division of the social scientific category since such studies really amount to historically-set social scientific studies. The JAOS article is very textual-criticism oriented and only marginally quantitative, falling easily within the philological/literary range usual to the Orientalist journals. If these considerations are accepted, then the association between Orientalist/Islamicist journals

and literary/linguistic articles is perfect. If it is not accepted that these considerations are proper, the relationship is still very significant ( $\chi^2 = 23.19$ ,  $p < .001$ ), if not terribly strong ( $\phi = .52$ ). It is also interesting to point out that eight of the journals surveyed did not publish a single quantitative article in five years, and that one of them was a modernist journal, a category which otherwise is the largest producer of such articles. This journal, WI, is in fact a retread of an earlier journal of a German Orientalist society, reinforcing the picture of the influence such old approaches still wield on research on the Middle East.

Table 4.

Period of Article	Number	Percentage
1960-1974	21	47.7
1901-1959	12	27.3
19th Century	2	4.5
17-18th Century	2	4.5
pre-17th Century	7	16.0
Total	44	100.0

Finally, Table 4 presents a frequency distribution of quantitative articles according to the historical time period with which they deal. This table demonstrates that quantitative methods have been much more applied to the modern period: fully 75% to the 20th Century alone. This is almost certainly due to the availability of statistics and populations to be surveyed, even the first of which is lacking for all but a small portion of pre-20th Century Middle Eastern situations.

In evaluating the use of quantification, a number of levels of sophistication can be differentiated: (1) the use of numbers to describe the extent of a phenomenon, (2) the addition of descriptive summary statistics such as means, standard deviations, etc., (3) univariate analysis in which an inference is being made about an entire population from the data at hand, which is only a sample of the population, (4) multivariate analysis: the connecting of two or more variables with (if one is a Hanafi, one is more likely to get an important judicial post in early 20th Century Egypt) or without causal implication (the higher the per capita GNP, the higher the level of political participation). This level may also be divided into two categories of increasing sophistication: (a) time series analysis where one variable's change over time is measured and trends noted or the effects of



historical events asserted, and (b) cross-classification or derivation of a functional formula expressing the relationship between two non-temporal variables. Sophistication also increases with the number of variables included in the analysis. Finally, (5) one may make use of techniques which go beyond simple measurement of such interrelations among variables, and recombine them by such techniques as factor analysis and simultaneous equations. There are, of course, variations in sophistication within all these levels. These variations rest on the extent to which assertions made and supported by quantitative data are (A) connected to theory and (B) use controls for validating the statistical tests applied to them. One must note in this connection that, especially with respect to criterion (B) above, studies on the Middle East are often lacking, and that quantitative-appearing arguments usually use only the most obvious and immediate connections (the price of cotton rose steadily, so those who had money were anxious to invest in agricultural land). This further indicates the degree to which Orientalist approaches have been retained, even in quantitative work.

Examining the actual pre-20th Century articles, it is clear that the use of biographical sources has played an important role in the increasing use of quantitative methods on such periods. Articles by Hayyim J. Cohen ("The Economic Background and the Secular Occupations of Muslim Jurisprudents and Traditionalists in the Classical Period of Islam until the Middle of the Eleventh Century"), Richard W. Bulliet ("A Quantitative Approach to Medieval Muslim Biographical Dictionaries"), and Joel Shinder ("Career Line Formation in the Ottoman Bureaucracy, 1648-1750: A New Perspective") in JESHO and by Hartmut E. Fahndrich ("The Wafayāt al-Acyān of ibn Khallikān: A New Approach") in JAOS have broken ground in this field, but, save for Bulliet's article, they are not very sophisticated as yet (Bulliet's reaches level 4a). Two of the other pre-20th Century articles (the Islam article and one of the AOC articles) are perhaps not properly included as their quantification is used to explain their scientific topics rather than human behavior. Another deals with frequency counts in pre-Islamic poetry (the ZDMG article by Ewald Wagner, a level 2 article in sophistication). Another JESHO article by Ronald C. Jennings ("Loans and Credit in Early 17th Century Ottoman Judicial Records: The Sharia Court of Anatolian Kayseri") uses archival sources in a descriptive manner, but the final JESHO entry is an interesting attempt at estimating birth rates at the time of Muhammad, again using biographical data (Charles Pellat, "Peut-on connaître le taux de natalité au temps du Prophète? A la recherche d'une méthode.") The final two pre-20th Century articles are in fact social scientific articles dealing mainly with the 20th Century but which extend coverage into the 19th Century.

The 20th Century articles tend to be more sophisticated in terms of criteria (A) and (B) above. Five of the sample were based on survey research and generally took the proper controls in interpreting their results; one was an anthropological case study.

techniques are the major examples of this type of activity. To my limited knowledge, the econometric study of the Middle East arms race prepared by John Lambelet is the only Middle Eastern example of such a technique, and I am not sure whether it was computerized or not. No doubt other model-constructing studies in economics and perhaps sociology have been done on the Middle East, but they are certainly not to be found in the sort of journal I have surveyed. Finally, computers may be used to test hypotheses statistically. Within this category, it is possible to distinguish between the testing of the assertions of pre-quantitative studies about social reality and the testing of newly formulated hypotheses, or indeed, the generation of such hypotheses via the statistical treatment of data. Within the former category, the increased use of Middle Eastern archives, especially the Ottoman archives, had led to empirical testing (in a very limited quantitative way) of accepted theses. An example of this is M. A. Cook's book on population in rural Anatolia in the 16th Century. Archival materials have also been used in a more thoroughly quantitative way to generate hypotheses by Andre Raymond in his work in Cairene artisans and traders in the 18th Century.

The ease with which the computer can deal with large quantities of data can free the researcher to concentrate on the quality of his hypotheses and tests, which, as noted earlier, constitute one of the major values of using quantitative methods in the first place. It is very unlikely that the two studies in my survey involving factor analysis would have been done without the aid of the computer. Abu-Lughod's book on Cairo has also employed computerized factor analysis, and there are no doubt other studies published in book form which could be mentioned in this regard. A growing field of social scientific research which has not so far, to my knowledge, been used in Middle East studies is "secondary" analysis. This is simply the reuse of data gathered by other researchers in a new way or comparatively with either newly gathered data or other "secondary" data. The question of such reuse of data filed (most convenient, of course, are machine-readable files) brings me to the final problem in this study: how to ensure the possibility of such secondary analysis.

Although the theories for which data is gathered as evidence differ, if one is to make maximum use of the computer's abilities, the actual files of data should be as free of theoretical pre-bias as possible so as to allow researchers to test different theories with the same file. In order to allow this, firstly, the variables or categories of information being collected must be properly defined. Obviously, this does not ensure compatibility, but it at least allows one to know what information is



Only two studies, Yasumasa Kuroda's "Young Palestinian Commandos in Political Socialization Perspective" in MEJ, and Melvin Alba and Christopher S. Davies' "The Spatial Structure of Socio-Economic Attributes of Turkish Provinces" in IJMES, used techniques in level (5) above: factor analysis in both cases. One cannot assert, at least from the publication of articles by these journals, that the use of quantification in Middle East studies is extensive or highly sophisticated.

## II. QUANTITIES OF QUANTITY

There is another sense, connected to the first, in which "quantification" can be used. Until fairly recently, extremely large bodies of social data could not be dealt with in a systematic and thorough way. Individuals could collect a life-time of experience and attempt to make a summary analysis, but not every detail in this data base could be thoroughly considered individually. Due to the computer, large "quantities" of data relating to social and economic history can now be thoroughly dealt with. In response, data files have grown very large indeed, including in some studies based on the U.S. censuses, up to half a million individuals, treated as individuals, not as aggregates. Obviously, no individual mind can deal with information on so many individuals in any but the most crude way: but the computer can if told how to do so (we will not deal here with the argument as to whether human beings can do things with data that no computer can -- I suspect that too little is known about human thought to assert a clear conclusion one way or another, and that the arguments are currently based on wishes rather than facts). The use of computers in the social sciences and history on American and European topics is well advanced. In these fields, the apologetic and theoretical orientations of earlier articles using computers have disappeared and such work is now almost exclusively empirical and substantive in orientation. Such is not the case in Middle East studies where very little of the basic data has been gathered and few clearly useful empirical studies have appeared to serve as convincing evidence of the efficacy of such methods.

Computers may be used in a number of ways. Most simply, they can be used to store and retrieve large quantities of data, either for more or less normal bibliographic or informational purposes, or to provide simple written (rather than numeric) cross-tabulations (simple level 4b above). The recently completed dissertation of Carl Petry on the geographic origins and residence patterns of non-Mamluk residents of Cairo in the 15th Century is an example of such use of the computer. Such studies can be described as only marginally quantitative if they do not use statistical measures of association between the variables selected. Secondly, computers can be used to construct non-empirical models of human behavior: systems analysis and various sorts of simulation

actually available and to what it refers so that if it is compatible, this can be clearly seen. Secondly, the method of encoding information should be as general and empirical as possible. That is, as much of the original information as possible should be preserved and not reduced into less specific categories: classes of data should not be degraded (i.e. exact numerical information [interval data] put into nominally labelled categories -- ages, for example, should be given in exact number of years, not as categories 16-20, 21-25, etc.); verbal or non-categorizable data should be preserved in its original form in so far as possible. This allows the analyst to make his own decisions on how such raw data is to be treated -- and other analysts will still be free to make different decisions in later treatments of the same data. Thirdly, codes should be useful: if a two digit code is needed, do not simply number the possible responses randomly, but make use of general distinctions among classes of responses in the tens digit. Codes may also express pseudo-numerical aspects or inherent ordering in the data. Fourthly, conventions should be used: for example, the same codes should be used for the same responses in different categories of information; this will speed searches for similar data. Other more technical considerations could be mentioned but are not for lack of space.

In designing a maximally useful data file, there is also the problem of making it suitable for treatment by one of the standard statistical program packages: this again is a more technical problem, but one which should at least be mentioned. Finally, the question of retrieval is of importance: that is, ensuring that the contents and usefulness of each data file can be quickly and reliably discovered. This, however, is a post-data-collection program to be faced by the institution(s) holding the particular data file. Related to this is the need to index existing data files and make such indices available to those doing research to prevent duplication and promote comparative secondary analysis.

The social sciences have made considerable progress in tackling these problems. Major interest was shown, starting in 1962, in promoting cooperation among the existing data archives and in getting new archives off to the best possible start. Interest was at first focused on survey data, but since then what is called "ecological" and aggregate data have been added. These include census data and historical records such as roll call and election return statistics for local and national levels. The Council of Social Science Data Archives (CSSDA) was founded in 1966 to coordinate the efforts of 19 archives, mainly American. It produced a system for generating machine-readable compatible codebooks and promoted increased quality and standardization of data files, codebooks, and retrieval systems, but then dissolved



in 1970 due to a lack of funding. The Standing Committee on Social Science Data Archives (SCDA) of the International Social Science Council was also formally established in 1966, but had a more European orientation until CSSDA disappeared in 1970. They have additionally investigated the use of optical text readers which should greatly expand the range of materials suitable for inclusion in computerized data archives.

Among those data archives known to hold materials relevant to the Middle East are the International Data Library and Reference Service of the Survey Research Center at the University of California at Berkeley, which held three survey studies as of 1965, and which concentrates on non-Western materials of the survey rather than the "ecological" or aggregate types. The University of Oregon archive holds materials on Israel and is not restricted to survey data. Those data archives whose holdings are not restricted (and may therefore include Middle Eastern materials) include the Roper Public Opinion Research Center at Williams College, the Massachusetts Institute of Technology archive, the Michigan State University archive, the Yale Political Science Research Library, and the University of California at Los Angeles archive.

The only computerized project on the Middle East known to me is the Onomasticon Arabicum project of the Institut d'Recherche et d'Histoire des Textes directed by Georges Vajda. It includes names and the references to them from the entire classical (and perhaps medieval) period of Islam. No further details are known to me at present.

Finally, a group has been meeting irregularly in Cairo since April 1975 to hold discussions relative to quantification and computerization and is working on a set of coding categories for biographical dictionaries and other biographical sources.

It seems to me that the quantitative study of the Middle East, although it is still a minor portion of all studies being done on the area, is becoming a more frequent sort of activity. The increased use of such methods in pre-20th Century research seems a particular indicator of health in this respect. Since so little has been done with computerization, those who will in the future undertake such activities are in an excellent position to take advantage of the interference that has been run in this field by those studying Europe and the United States. The opportunity to standardize and coordinate future activities in computerization should in particular not be passed up. I ask any of the readers of this article who are interested to contact me %American Research Center in Egypt, 2 Midan Kasr el-Dubbara, Cairo, Arab Republic of Egypt.

## CURRENT MEDIEVAL ISLAMIC HISTORICAL STUDIES

Jere L. Bacharach, ARCE Fellow  
University of Washington

There is a scholarly revolution sweeping the Eastern Arab world in terms of the study of medieval Islamic history, and it is creating a problem for every scholar who wishes to keep abreast of current research. To place the current developments in their proper perspective earlier scholarly trends must be summarized.

In the 1950's and mid 60's Cairo was the only major center where a consistent body of writings in Arabic on medieval history was being produced. (Damascus, and to a lesser extent Beirut, have long histories of scholarly activities but the tendency of these centers was to publish in French, which gave their works a fairly wide circulation in the West.) The faculty of Cairo University dominated the field plus one or two key men at Ain Shams and Alexandria. Their scholarly production was primarily book length, general surveys with some monographic studies sprinkled among them. There was also some editing of historical texts but not at a rate which made book ordering or buying a serious problem. Significant contributions in scholarly journals were found primarily, although not exclusively, in the Bulletin of the Faculty of Arts, Cairo University, and the Egyptian Historical Journal. Many American libraries received both, and a regular check of them kept one abreast of the major articles.

In the late 60's there was a sudden explosion in terms of the editing of texts. Chronicles which had been unfinished for years were being completed and new sources were appearing just as fast. Both symbolic of and a reason for this change was the establishment of a Center for Editing at the Egyptian National Library. Scholars were supplied with a basic reference library and microfilm readers for studying microfilms of variant texts; advanced students were being trained in order to edit future texts. While Beirut and Baghdad could not match the developments in Cairo, presses in these two cities began to produce reprints of the classic nineteenth century European and Bulaq editions of the Arabic historical texts. Fortunately, between P.L. 480 acquisition lists and new-book lists of a few dealers in Egypt and Lebanon, scholars could still keep track of what was being produced, by whom and for how much.

At the same time historical texts were dominating the book market, a new generation of Arab scholars was being trained in medieval Islamic history. Many of them were finishing M.A.'s



and Ph.D.'s in history. While this was a major improvement for scholars who wished to find out what work had been done, it was not adequate. For example, in the College of Archaeology, whose theses are not listed, a number of important studies have been completed on Mamluk monuments in Cairo which an historian interested in Mamluk history should take into consideration. Determining the existence of these theses in Egypt and other Arab states is one problem created by "scholarly revolution." To meet part of this problem, a graduate student in Library Science at Cairo University is undertaking a listing of every M.A. and Ph.D. awarded by an Egyptian University.

Egypt was not the only center for advanced academic training and a surprising number of Arabs went to Britain, particularly London's School of Oriental and African Studies, to complete their Ph.D.'s. When they returned to the Eastern Arab world, they took up academic posts in Cairo, Riyadh, Kuwait, Baghdad and Amman, if not other cities.

These scholars, along with their locally trained colleagues, are interested in continuing their scholarly activities and they have begun editing texts and writing books. A recent trip to a Beirut book dealer led to the discovery of important historical works edited in Amman, Baghdad and Riyadh during the last year. Only a paper shortage has curtailed Cairo production although long lists of texts are in finished form waiting at various Egyptian printers. Thus scholars, in both the East and the West, are becoming more and more dependent on book dealers to learn of the production of historical texts. Obviously such dependency is not the best means of keeping track of edited texts.

Another aspect of this new scholarly production is that these academicians are writing monographs which are more important for future historical studies than the general surveys produced by an older generation. The example of three London Ph.D.'s will best reflect the problem. The first, on the Egyptian financial system under the Ayyubids and Mamluks, was printed in Oxford and has had very wide circulation; the second, a very serious, scholarly biography of the famous Fatimid ruler al-Hakim, has appeared in Beirut and has been picked up by a number of local book dealers but the third, a study of the Arab geographic accounts of the northern Hijaz was published in Riyadh and is relatively unknown although its scholarship is of the same standard as the other two works. The problem of keeping track of scholarly monographs written in Arabic and published throughout the Eastern Arab world is even greater.

The final element of this revolution has been the emergence of a serious, scholarly periodical literature. Specific historical problems and editions of limited historical material

are now being produced in journals. Many of these journals are new. In a recent trip to Cairo University, alongside the older journals for the Faculty of Arts of Cairo University, Alexandria, Ain Shams and AUB's Al-Abhath, one could find periodicals from the universities of Amman, Basra, Baghdad, al-Mustansiriya (Iraq), Cairo at Khartum and Omdurman (Sudan). There is also a new one not in their library from Kuwait and possibly others from the Arabian Peninsula. Scholars are already talking about a guide to Arabic periodical literature to deal with this problem.

The sad irony of this boom in periodical publication is that those libraries with a long history of collecting periodicals do not have the financial resources to buy these new journals. This does not apply only to Cairo University but from discussions with the staffs at AUC and AUB, one learns that their future ability to buy is as limited. As many of us know, American libraries are also facing a serious financial problem and are reluctant to invest in numerous new periodicals. In summary, the academic revolution has been the product of the emergence of a new generation of Arab scholars. They are editing texts, producing monographs and writing articles. They are publishing their material in every Arab state. The problem we all have, Arab and non-Arab alike, is how to keep track of it in order to use it in the most profitable way for further research.

#### EGYPTIAN CABINET RESHUFFLE

On April 16, 1975, a new 35-member Cabinet under the Premiership of Mr. Mamduh Salem was announced. The new Cabinet consists of 16 newcomers and 19 hold overs. At the same time President Sadat named Lieutenant General Mohamed Hosny Mubarak, formerly Commander of the Air Force, to the post of Vice-President. All six posts of Presidential Advisers and Assistants have been abolished.

Mr. Mamduh Salem, who succeeds Dr. Abdel Aziz Hegazy as Prime Minister, is 57. He was a police officer from 1940 to 1967, when he was appointed provincial governor. Mr. Salem was first named Minister of Interior in 1971, a position he has held in five successive cabinets.

The new Cabinet contains three Deputy Premiers: Dr. Mohamed Hafez Ghanem, Deputy Premier for Services and Minister of Higher Education; Mr. Ismail Fahmy, Deputy Premier and Minister of Foreign Affairs; and General Mohamed El-Gamassy, Deputy Premier and Minister of War.



Two of the three ministers with whose ministries the ARCE has direct contacts, Foreign Minister Mr. Ismail Fahmy and Minister of Culture Dr. Youssef el-Sebai, remain in the new Cabinet. However, the Minister of Higher Education, Dr. Ismail Ghanem, has been replaced by Dr. Mohamed Hafez Ghanem, who has previously served in the Cabinet as Minister of Education. Dr. Ismail Ghanem rejoins the faculty at Ain Shams University.

#### MR. ALBERT ABDEL AHAD APPOINTED BUSINESS MANAGER OF CAIRO CENTER

On April 1, 1975, Mr. Albert Abdel Ahad was appointed Business Manager of the ARCE in Egypt. For the last seven years, since 1968, Mr. Ahad has been serving part-time as accountant with the ARCE.

Mr. Ahad was born in Cairo on January 7, 1915. He attended the Collège des Pères Jesuites (Sainte Famille) in Cairo. His further training included a correspondence course in General Advanced Accounting, and while he was with ARAMCO he had special instruction in the oil company's policy and total accounting procedures.

From 1947 to 1955 Mr. Ahad served as Supervisor of Cash Movement with Thos. Cook & Son Ltd., Cairo, where he was responsible for accounting and administration in the Shipping and Forwarding Department. From 1955 to 1965 he was with ARAMCO Overseas Co., Cairo, as Supervisor of Accounting and General Services, responsible for the treasurer and comptroller functions of the Cairo office. In 1966 Mr. Ahad was Senior Cashier at the American University in Cairo and in 1967 was Accountant at the American Embassy. In November 1969 he was placed in charge of the Department of Personnel of the FAO UNITED NATIONS' Regional Office for the Near East, Cairo, a position he held until his appointment as Business Manager of the ARCE.

Mr. Ahad is married and has two children, a daughter, Catherine, 16, and a son, Magdi, 13.

#### THE CENTER'S GUEST BOOK

Lanny Bell, representing the University Museum, University of Pennsylvania, co-sponsor for the International Conference on Egyptology, arrived in Cairo January 2 to assist in last minute preparations for the Conference. Dr. John A. Wilson, former President of the ARCE, and Mrs. Wilson and Mrs. Lily M. Brown,

U.S. Director of the ARCE, accompanied by her husband, also arrived a few days before the Conference opened. Dr. Josephine M. Harris and Dr. John T. Cummins brought with them to the Center a group of students from Wilson College, Chambersburg, Pennsylvania, on their annual trip to Egypt, which included: Miss Joyce T. Haynes, Miss Frances G. Kemper, Miss Nancy Lochmann, Miss Lucy Whally, Miss Carrie Gildendale, Miss Elizabeth A. Lima, Miss Emily Harrison and Miss Jackie Harrison. Mrs. Barbara Elder, UCLA, had timed her visit to Egypt to coincide with the Conference. Dr. Kazimir Michaelowski, Director of the Polish Center of Archeology in Cairo, and Dr. Victor Daszeusti, Secretary General of the Center, called. Mr. Joseph L. Townsend, Jr., Mayor of Greenport, New York, Dr. Henry Riad, Director General of Egyptian Antiquities, and Dr. Halim Grace of the Anglo-American Hospital in Cairo, all stopped by the Center.

From January 5-9 the Guest Book was made available in the lobby of the Semiramis Hotel to those attending the International Conference on Egyptology. The ninety-six signatures represented scholars and students from the following seventeen countries: Argentina, Austria, Canada, England, Finland, France, Germany (both East and West), Holland, Italy, Lebanon, Norway, Poland, Sweden, Switzerland, the United States, and, of course, Egypt. Since attendance at each session averaged between 100 and 150, it is apparent that not all of those attending the Conference signed the Guest Book.

Back at the Center to interview some of the participants in the Conference were M. Samir Abdel Aziz of Radio Cairo and Miss Ayman El Amir of Al Ahram. Dr. Owen Gingerich of the Smithsonian and Dr. Abdel Hamid Sabra of Harvard University, both consultants on Dr. King's project relating to early scientific manuscripts in the Dar al Kutub, spent several days in Cairo. Mr. Richard Fazzini of the Brooklyn Museum passed through Cairo en route to Luxor to study the feasibility of clearing the tomb of Ramses II. Dr. Alfred Friendly was on his way to Aswan to write an article on Philae for Smithsonian Magazine. Dr. A. J. Meyer of Harvard University accompanied Dr. David W. Mize, American Friends of the Middle East, Washington, to the office. Three scholars working at Saqqara stopped by: Dr. Jean Leclant, Dr. Jean Philippe Lauer and Mr. Kenneth J. Frazer, who was working with Dr. Geoffrey Martin on the Egypt Exploration Society expedition. Other visitors to the Center during January included: Rabbi Boruch Koppel Helman of Brookline, Massachusetts; Rev. Frederic Bush of Fuller Theological Seminary, Pasadena, California; Miss Juday Pugh of the University of Chicago; Dr. Harry J. Carroll of Pomona College, California; and Mr. Yacoub Farah, former Inspector of Antiquities.

During February Mr. and Mrs. William Lewis, now residing in Bab-el-Louk, and Dr. Ahmed Ali Badawi of Zamalek called. Dr. and Mrs. Frank Filce Leek and Mr. Joseph P. Clarke were here from England, the former to join a Nile cruise and the latter to participate



in the Akhenaten Temple Project. Egyptologists Dr. Herman te Velde of the Netherlands, Miss Beale George and Dr. Bengt Peterson of the Museum of Near Eastern Antiquities, Stockholm, Sweden, were on their way to Luxor. Dr. Fred Wendorf of Southern Methodist University with members of his expedition which included Herb Mosca and Dr. Vance Haynes of the University of Arizona were preparing for another season of surveying prehistoric sites in the Western Desert. Miss Katherine Smalley and Mr. Leo Rampen of the Canadian Broadcasting Corporation asked for suggestions regarding the production of a television series on Egypt. Mr. Frank Muhly and Mrs. Bunny Harvey of the American Academy in Rome sought our help in making reservations and travel plans for Upper Egypt. Professor William F. Tucker of the University of Arkansas, an Affiliated ARCE Fellow, arrived, and Dr. Susan Staffa, former ARCE Fellow now at the AUC, stopped in. The Egyptian playwright Mr. Shawky Hakim, one of whose plays is to be included in the second volume, Drama, of the Arabic Writing Today series being published by the ARCE, called, as did Mr. Mamdouh Eisa, journalist with El Mawed. Mr. and Mrs. John Livingood, old friends of the Center from Chicago, reported on their round-trip Cairo-Aswan-Cairo on the Swan Tour boat Delta. Dr. Stephen Johnson and his family were returning to the States after some years in Istanbul, where Dr. Johnson had been teaching. Dr. William Kelly Simpson of the Boston Museum of Fine Arts and of Yale, Vice-President of the ARCE, was in Cairo to attend a meeting of the Trustees of the American University. Dr. Geoffrey T. Martin of the Egyptian Exploration Society reported to us on his exciting rediscovery of the Tomb of Horemheb in Saqqara. Mrs. James Allen of Chicago House brought her visiting parents, Mr. and Mrs. Harold G. Otto of Chicago, to the office. Miss Barbara Winlock and Miss Patricia J. Lannon of North Haven, Maine, and Mr. John E. Olson of Kansas City, Missouri, also called at the office during February.

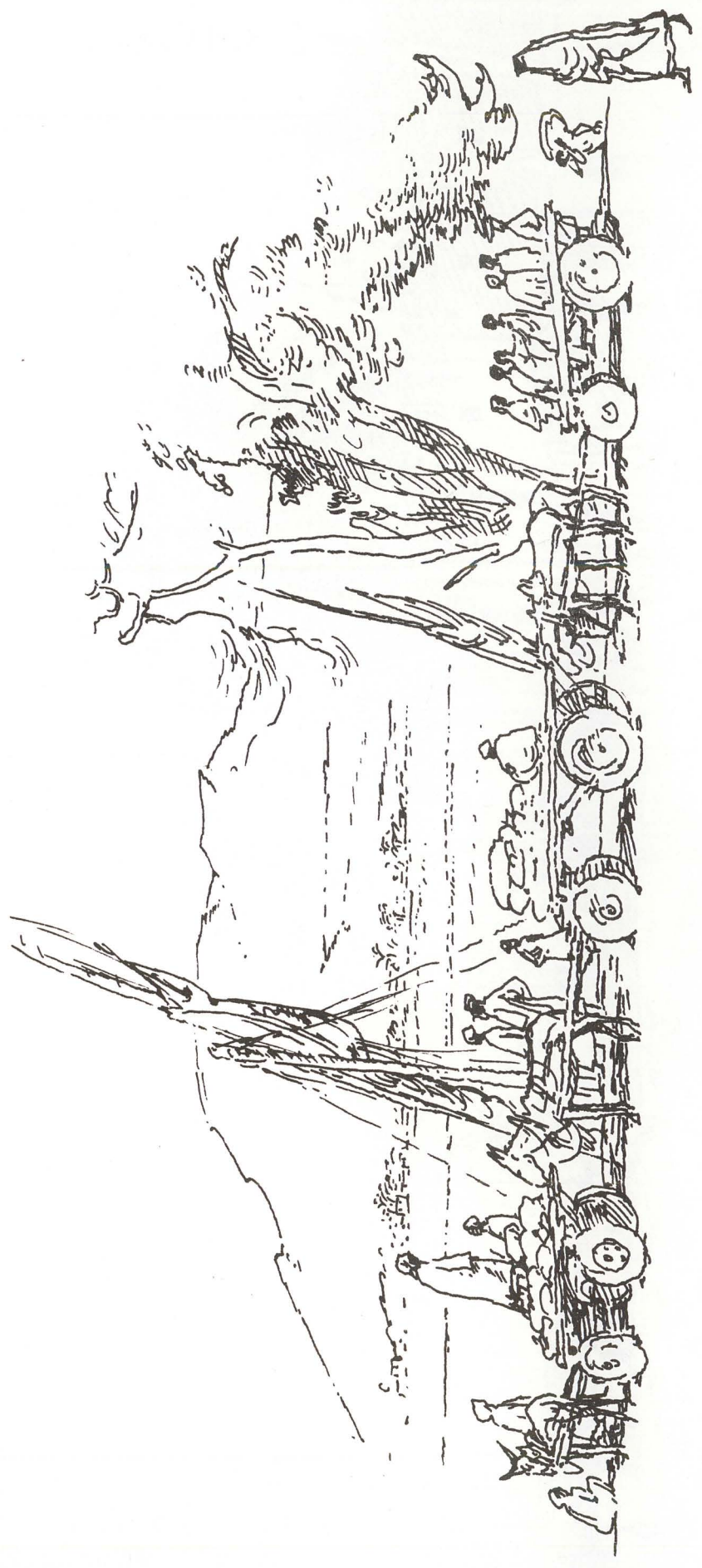
Visitors to the Center during March included Mr. Mostafa Abdel Hadi of the Office of Sound and Light, Dr. Zaki Y. Saad, formerly of the Department of Antiquities, Mr. Ibrahim El Nawawy, Curator in the Egyptian Museum, Dr. Mahmoud Hassanein, Professor of Medicine at Cairo University, Mr. Zaki Hawwas, Inspector of Antiquities at the Giza Pyramids, Dr. Hussein Fahim of the Social Research Council at the AUC, and Mr. Mahmoud Fahmy of the Ministry of Tourism. Dr. Mario Tori and Miss Lovera Franco of the Egyptian Museum of Turin called. Mrs. Nina Nelson, author of Shepherd's Hotel, was in Egypt to update and republish her guidebook on this country. Mrs. Martha Butterfield of Toronto and Mr. George Cowley, Counselor of the Canadian Embassy, called in connection with a tour group sponsored by the Royal Ontario Museum to visit Egypt in April. Dr. Andrzej Zaborski of Cracow University, Poland, called at the office. Mr. Thomas Hoving, Director of the Metropolitan Museum of Art, with Dr. Christine Lilyquist, Mr. and Mrs. Barnabas McHenry, and Mr. and Mrs. Keven Roche, were visiting Egypt on the invitation of Dr. Gamal Mokhtar. Mr. Lucius D. Battle, who first signed the Center's Guest Book on September 22, 1964, two days after he had arrived in Cairo as Ambassador, signed again, this time as

Senior Vice-President, COMSAT. Miss Erin Daly and Miss Dona Lupo, with a group of students from Loyola University in Rome, called at the Center. Miss Susan K. Doll and Miss Janice W. Yellin, students of Egyptology at Brandeis University, were adopted by the Center as "transient fellows" during their month's stay in Egypt. Dr. David Challinor, Assistant Secretary for Science at the Smithsonian Institution, accompanied by his son Tom, spent four days on the Center's boat the Fostat inspecting Smithsonian-funded projects, not the least of which is the Center. Other visitors to the Center during April included Mrs. Aisha Gouverneur of Maadi, Dr. Barry J. Kemp of Cambridge, leading a Swan Tour excursion trip on the Nile, Miss Nevine Doss of Cairo, Miss Lily S. Khalil of Pan American Airways, Miss Lily A. Berry of Schenectady, New York, Mr. and Mrs. Claude C. Albritton III and Mr. David L. Yancey, all of Texas, and Ms. Mary D. Dorman of New York City.

#### Drawings

The two ink-drawings of scenes in Luxor on the pages following, are by Martyn Lack who has been an artist with the Oriental Institute's Epigraphic and Architectural Survey at Chicago House since 1968. Mr. Lack would be willing to sell the originals, which are now at ARCE, Princeton, for \$70 and \$84.





Martin Lark





M. A. L. 73.

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